Abstract of the Disclosure

In a data packet router, a router fabric card for routing data packets is provided. The router fabric card comprises a plurality of ingress/egress ports, the ports connected through a switching facility for switching connection states of the port paths between individual ingress paths and individual egress paths on the fabric card, and a scheduling component for scheduling communication between ports on the fabric card. Data coming into ingress on the card is organized into individual data-packet trains, each individual train comprising data packets and inserted data denoting a starting point and an ending point of a train. The switching facility recognizes the start data and the end data of a train and switches port paths to a next-assigned connection state accordingly.